

COVID-19 Clinical Q&A

April 9, 2020

About this presentation

On **Thursday, April 9**, Dr. Ben Kruskal, NEQCA Medical Director and infectious disease specialist, pre-recorded a webinar for NEQCA's LCO Leadership including Presidents, Administrators and Medical Directors to provide an update on COVID-19. Disclaimer: The information in this presentation is relevant as of 4/9/20. The situation, however, is changing rapidly. To ensure you have the latest information on COVID-19, use the resources below:

- **Stay Informed:** [Enroll in MDPH COVID-19 Text Notifications](#)
- [COVID-19 Cases in Massachusetts](#) (Map)
- [COVID-19 Cases in Mass: Mass DPH](#) (Data)
- [The COVID Tracking Project](#)
- **Global and National impact:** [Centers for Disease Control](#)
- **Situation in Massachusetts:** [Massachusetts Department of Public Health](#)
- **COVID-19 Resource Center:** [Infectious Diseases Society of America](#)
- **Travel Restrictions:** [U.S. State Department](#)

COVID-19 Situation Update

Ben Kruskal, MD

Medical Director

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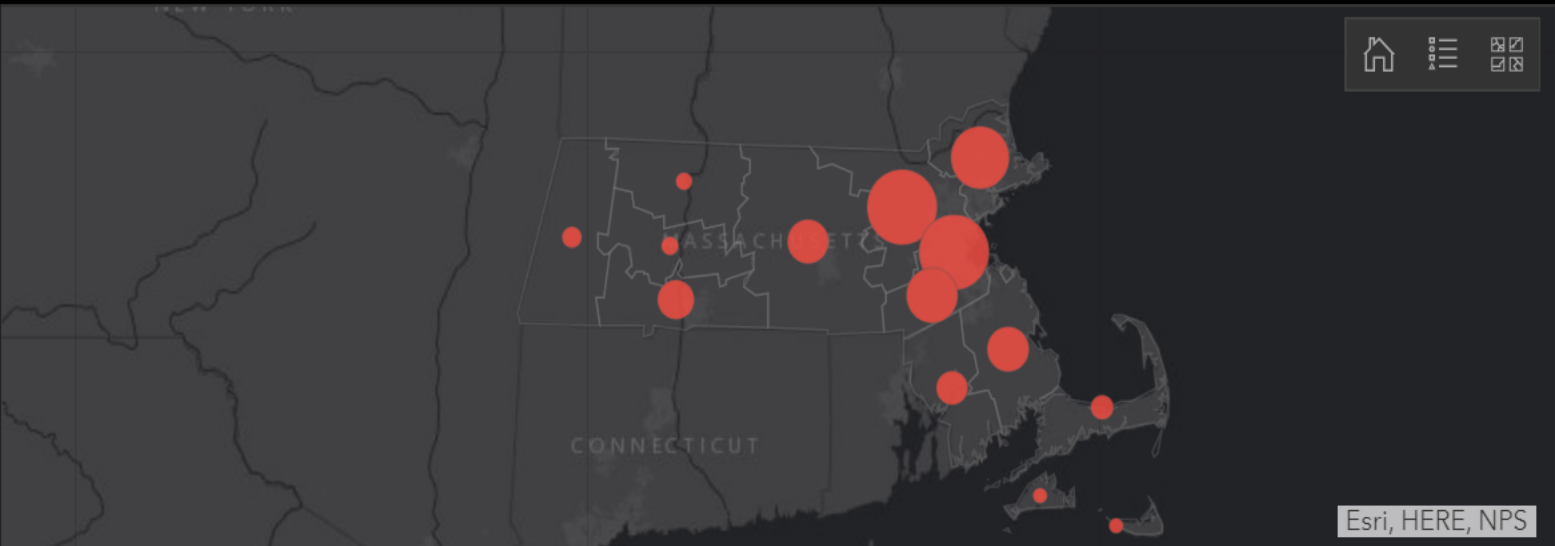
Coronavirus COVID-19 Cases in Massachusetts

Total Cases

16,790

Cases by County

| | |
|-------|------------|
| 3,600 | SUFFOLK |
| 3,545 | MIDDLESEX |
| 2,103 | ESSEX |
| 1,778 | NORFOLK |
| 1,327 | PLYMOUTH |
| 1,296 | WORCESTER |
| 1,081 | HAMPDEN |
| 835 | BRISTOL |
| 423 | BARNSTABLE |
| 281 | BERKSHIRE |



Total Deaths

433

Sex

| | |
|-------|---------|
| 8,872 | Female |
| 7,874 | Male |
| 44 | Unknown |

Hospitalization

| | |
|--------|---------------------|
| 10,490 | Under investigation |
| 4,717 | Patient was not |

Last updated on
4/8/2020

Data from Massachusetts Department of

Total Cases Over Time



Total Cases

Daily New Cases

Link to map on NEQCA.org

Goal: To Save Lives

- Hospitals keep critically ill patients alive.
- By **keeping unnecessary visits out of the EDs**, our practices give the hospital more capacity to deal with more severe emergencies.
 - Constraint: PPE availability
 - Nobody should be seeing *possible COVID-19* (acute respiratory symptoms and/or fever without other localizing symptoms) without mask, gloves (Eye protection, Gown)
- **Keep practices open**
 - Continue to provide care
 - Survive financially

Avoiding ER visits

- **Collaboration with local specialists to avoid ER visits**
 - Identify, connect with key specialists
 - Orthopedics (Injuries/?fractures; ?Plain films available?)
 - General surgery (Lacerations, FB)
 - Ophthalmology (FB, injury, acute visual changes)
 - ENT (FB, acute hearing loss)
 - Make masks available in small numbers when requesting they see your non-respiratory patient
- **Remember Shields available for urgent CT/MRI**
- NEQCA Central looking into home care for IV infusions (e.g., fluids, some meds)

COVID-19 Transmission/Precautions

- **Route of transmission: Respiratory droplets**

- **simple facemask (“Surgical mask”) is effective**

With Eye protection, gloves (Gowns)

- **N95 NOT needed in outpatient setting (NO Nebulizers)**

Not N95



- **Surfaces +/-**

- Soaps and any surface disinfectant are effective
 - Includes quaternary ammonium (quats like Lysol/benzalkonium), 70% alcohol, dilute bleach (1:100 for this purpose), peroxide and any soap or detergent meant for surface cleaning

What about cloth masks?

- **Cloth masks**

- A few studies suggest these are **significantly less effective** at preventing other respiratory viral infections or penetration of particulates than standard disposable surgical masks
- **“Has to be better than nothing”**
 - Good for source control
 - Potential risk: outside surface gets contaminated, touch can infect us

- **PPE from state?**

- <https://www.mass.gov/info-details/guidance-for-requesting-personal-protective-equipment-ppe>

Testing for COVID-19 – Part 1

- **Currently PCR is only technique available**
 - Detects viral RNA fragments, not intact/transmissible virus
- **Why test/who to test?**
 - ONLY symptomatic individuals (negative in asymptomatic doesn't mean they're not incubating)
 - Who they have exposed? (Public health relevance; HCW, first responder, congregate settings like SNFs, group homes, etc)
 - Very sick patients (relevant inpatient for cohorting, infection control, possible clinical trials)
 - High risk outpatients (follow more closely)
 - Contact tracing and quarantine/isolation: DPH/Partners in Health/Community health centers

Testing for COVID-19 – Part 2

- **Testing options**

1. Specimen collection at full service testing sites ([list on DPH website](#), updated daily), test sent by them to their preferred lab
 - Pt can be tested based on clinician order if pre-screened by clinician for eligibility
 2. *Specimen collection in office*, test run by Quest (or other commercial lab)
 3. *Specimen collection in office*, test run at Tufts Medical Center
 4. *Specimen collection in office*, test run in office IF YOU HAVE the Alere/Abbott ID NOW system (used for rapid POC tests for flu, strep, RSV, and now Covid-19)
- Swabs becoming more available—from labs and suppliers (Also 3d printing)
 - Viral transport medium available from labs (Quest, Tufts)

COVID-19 PCR: False positives and negatives

- **False positives**

- Residual viral fragments persisting on the mucosa after transmissible virus is all gone (Same principle applies to other tests for infection using PCR detection, e.g. Chlamydia): we don't know how long
- Laboratory contamination

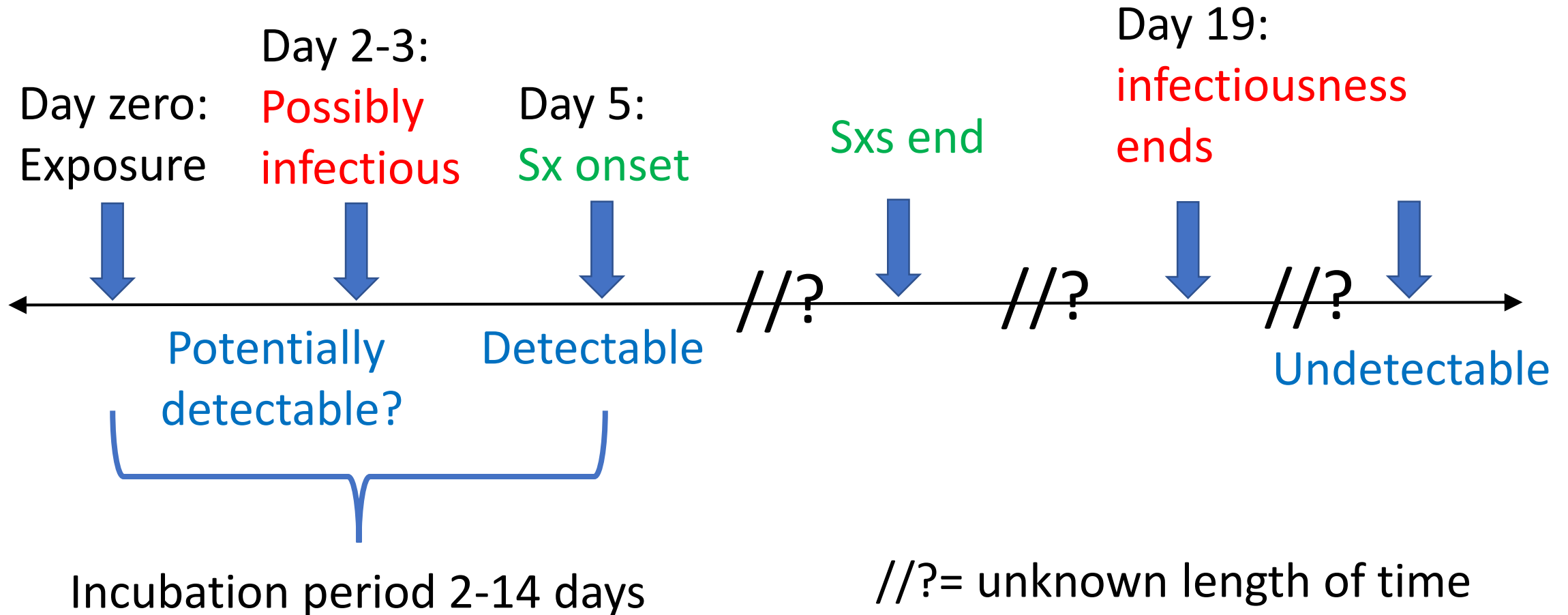
- **False negatives**

- Swabbing technique
- Choice of anatomic site (Sensitivity highest: NP > OP > Nose)
- PCR inhibitors (from pt, from inappropriate swab)
- Timing: during early incubation period

Immunity?

- Not well characterized yet for SARS-CoV-2/Covid-19 but...
- In comparison with other respiratory viral infections
 - The reason we recover is because an immune response occurs and eradicates the virus
 - Duration of immunity varies; some lifelong, some months or 1-2 years
 - Antibodies (most easily measured component of immune response) may or may not be the protective mechanism
 - Convalescent plasma as treatment
 - Early reinfection likely very rare
 - Apparent cases are likely false positives: residual viral fragments persisting on the mucosa after transmissible virus is all gone

Timeline of SARS-CoV-2 infection



Remote assessment of respiration

- **Non-medical grade pulse oximeters and apps**
 - Inexpensive pulse oximeters sold online
 - Pulse oximetry smartphone apps
 - I DO NOT RECOMMEND use at this time
- **Clinical triage tools**
 - None validated; some expert opinions
- When **Telehealth** used (video visits), remember observation as well as listening to speech

Potential Treatments

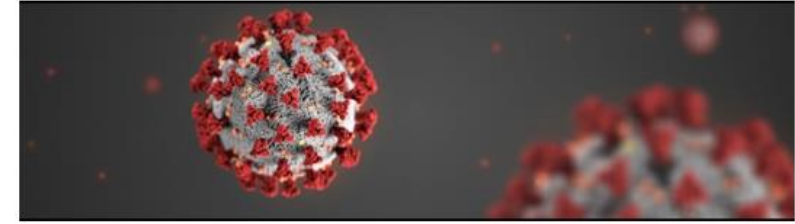
- NOT RECOMMENDED: hydroxychloroquine and chloroquine (+/- azithromycin)
 - Real risks!
 - No real evidence of efficacy. Initial “studies” deeply flawed.
- Investigational IV: remdesivir, biologic anti-cytokine storm (tocilizumab, sarilumab)
- Convalescent plasma

NEQCA COVID-19 Website

- Updated daily
- Upcoming Programs
- Statistics and Expert Resources
- Clinical Guidelines and Tools
- Medical Practice Sustainability
- Telehealth Services
- Broad Strategies To Combat COVID-19
- Resources for Patients
- Wellbeing for All
- Recorded Webinars, Presentations



HELPFUL COVID-19 INFORMATION



Last updated: 4/8/2020

In collaboration with our colleagues at [Tufts Medical Center](#) and [Floating Hospital for Children](#), NEQCA is closely following the spread of the respiratory disease COVID-19. We encourage you to use this page as a resource to ensure you have the latest information.

NEQCA's priorities include: providing **clinical support** for our LCO leadership and Network providers with COVID-19 protocols and telehealth, **operational support** to keep our practices open and continuing to care for patients and **economic support**, to help physicians weather the economic impact of COVID-19. Information about how to apply for loans and address human resources matters are being provided through instructional webinars and phone consultations.

PROGRAMS FOR OUR NETWORK

| Today April 2020 | | | | | | | Print | Week | Month | Agenda |
|------------------|----------------|------------------------------------|------------------|------------------------------------|-----------------|-----|-------|------|-------|--------|
| Sun | Mon | Tue | Wed | Thu | Fri | Sat | | | | |
| 29 | 30 | 31 | Apr 1 | 2 | 3 | 4 | | | | |
| | | 5:30pm NEQCA C 7:30pm Tufts Mec | | | | | | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | |
| | | | | 12pm Telemedici 5:30pm Q&A Sess | 7:30am Q&A Sess | | | | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | | | | |
| | 5pm Q&A Sessio | 5:30pm NEQCA C | 7:30am Q&A Sess | 12pm Telemedici | | | | | | |
| | | | 12pm Tips For Te | 6:30pm Taking Ci | | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | | |
| | | | | 12pm Telemedici | | | | | | |
| 26 | 27 | 28 | 29 | 30 | May 1 | 2 | | | | |
| | | | | 12pm Telemedici | | | | | | |

Stay Safe ... and THANK YOU!